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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/828,625

04/09/2001

David C. Paul

8932-295

9112

20582

7590

09/17/2003

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EXAMINER

JACKSON, SUZETTE JAMIE

ART UNIT

PAPER NUMBER

3738

DATE MAILED: 09/17/2003

20

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/828,625

Applicant(s)

PAUL ET AL.

Examiner

Jackson J Suzette

Art Unit

3738

-- Th MAILING DATE of this communication appears on the cover sheet with the correspond nce address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2003 and 01 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 41-44 is/are allowed.
- 6) ☒ Claim(s) 1-3, 8-10, 12-15, 21-23, 26, 33-35 and 40 is/are rejected.
- 7) ☒ Claim(s) 4-7, 11, 16-20, 24-25, 27-32, 36-39 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5, 11.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: See Continuation Sheet.

Continuation of Attachment(s) 6). Other: IDS pto 1449 5, 11, 14-15 and 19 are attached.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 8, 15, 21-23, 26 and 40 are rejected under 35 U.S.C. 102(e) as being anticipated by Ford et al. 6,51,509. Ford et al. discloses the invention as claimed (noting figure 1B and 1C) comprising: An intervertebral implant made of a plug of allogenic bone (col. 1, lines 45-46, 58-63); conforming in size and shape with a portion of the end plates of adjacent vertebrae (col. 4, lines 10-13); a plurality of top and bottom teeth in at least a two (col. 5, lines 2-7) dimensional array spaced apart from one another; wherein the teeth have a pyramidal shape (col. 4, line 1 and 34-56) profile defined by four sides forming an acute angle with respect to the respective top and bottom surfaces of the implant (it is inherent that the sides form an acute angle with the top and bottom surfaces because “acute” defines as less than 90 degrees); wherein the teeth are integral with the top and bottom surfaces (see figure 1C); and an opening communicating with a hollow cylindrical interior space.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-3, 9-10, 12-14, 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ford et al. in view of Pafford et al. 6,371,988. Ford et al. has been disclosed above however Ford et al. does not teach osteoconductive material to promote the formation of new bone by using bone chips and while Ford et al. shows teeth on the top and bottom which are interrupted to form a channel they do not specify the insertion of an instrument. Pafford et al. teaches an allograft implant with teeth (205); and a space (25, 130) for receiving osteogenic material and/or bone chips (see figure 40 and see col. 13, lines 37-44 and element 30) and instruments for distracting the vertebral endplates (see col. 8, lines 41-63). It would have been obvious to one having ordinary skill in the art at the time the invention was made to take the invention of Ford et al. and pack the chamber with osteoconductive material (mainly bone chips) because it would promote adherence of the implant to the surrounding vertebrae and it also would have been obvious to remove a portion of a disc located between the adjacent vertebrae, distract the endplates and then insert the implant because distracting is a well know technique for implanting metal and bone spacers.

*Allowable Subject Matter*

5. Claims 4-7, 11, 16-20, 24-25, 27-32, and 36-39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 41-44 are allowed.


*Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Paul et al. 6,554,863 ; Paul et al. 6,258,125 and Paul et al. 6,143,033 all show related material.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suzette J. Jackson whose work schedule is Monday-Friday 9-6:30 off every other Friday and whose telephone number is 703-308-6516.

9. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3580.

10. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.

  
Suzette J. Jackson  
10 September 2003